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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,248	08/23/2005	Susumu Natsuyama	JCLA12555	6771

7590

07/12/2006

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EXAMINER

HANDAL, KAITY V

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/526,248

Applicant(s)

NATSUYAMA ET AL.

Examiner

Kaity Handal

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/22/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - a. Page 9, line 21 contains the phrase "bolt 5b" and line 23 contains the phrase "rotary shaft 5c".

Appropriate correction is required.

- a. Page 15, line 13 reads "fig. 1, the rotor 15a", the rotor 15a is illustrated in figure 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Witt et al. (US 5,779,995).

With respect to claim 1, Witt teaches a fluidized bed apparatus (figure 1) comprising a processing container (1), a draft tube/central free flow chamber (3) arranged inside the processing container (1), and a disintegrator mechanism/agitator (4), the fluidized bed apparatus (1) being characterized in that a fluidizing gas

introduced from a bottom portion/through gassing device (43) of the processing container (1) causes powder particles/sludge in the processing container (1) to form a fluidized bed in which the powder particles/sludge circulate so as to ascend through a space between an inner wall of the processing container (1) and the draft tube/central free flow chamber (3) (through passage pipes (21)) and descend through an inner portion of the draft tube/central free flow chamber (3)); and agglomerates of the powder particles descending through the inner portion of the draft tube/central free flow chamber (3) (as illustrated) are dispersed by the disintegrator mechanism.

With respect to claim 2, Witt teaches wherein said disintegrator mechanism/agitator (4) comprises an impeller/agitator blade (42) having a disintegrator blade (42).

With respect to claim 6, Witt teaches wherein said fluidized bed apparatus (fig. 1) comprises a spray nozzle/gassing device (43) (as illustrated).

With respect to claim 7, Witt teaches wherein said spray nozzle/gassing device (43) is arranged such that the spray nozzle/gassing device (43) can spray the spray solution to the powder particles/sludge that have passed the disintegrator mechanism/agitator (4) and blade (42).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 8, 11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. (US 5,779,995) as applied to claims 1-2 above, and further in view Hirschfeld et al. (US 5,284,678).

With respect to claims 5 and 8, Witt discloses all claim limitations as set forth above but fails to show wherein said fluidized bed apparatus comprises a rotary rotor for sending the powder particles that have passed the disintegrator mechanism to an upward current of the fluidizing gas by centrifugal force. Hirschfeld teaches an apparatus for coating particles agitated by a rotatable rotor (fig. 1, 21) and a rotating circular disk (23) in order to give rise to a centrifugal force (col. 10, lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a rotary rotor as part of Witt's disintegrator mechanism/agitator, as taught by Hirschfeld, in order to give rise to a centrifugal force.

With respect to claims 11 and 14-15, Witt teaches wherein said fluidized bed apparatus (fig. 1) comprises a spray nozzle/gassing device (43) (as illustrated).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. (US 5,779,995) as applied to claim 1 above, and further in view of Hanify et al. (US 5,227,136).

With respect to claim 4, Witt discloses all claim limitations as set forth above but fails to show wherein said disintegrator mechanism comprises a rotor and a stator each having a plurality of concentrically arranged teeth. Hanify teaches an apparatus comprising a tank (figure 1), a mixer comprising rotor and a stator/arms (90) having teeth/diffusers (100) (abstract) in order to direct the gas/oxygen or air upwardly and outwardly into the sludge (col. 7, lines 46-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a rotor and a stator having a plurality of concentrically arranged teeth in Witt's apparatus, as taught by Hanify, in order to direct the gas/oxygen or air upwardly and outwardly into the sludge.

7. Claims 10, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. (US 5,779,995) in view Hanify et al. (US 5,227,136) as applied to claim 4 above, and further in view of Hirschfeld et al. (US 5,284,678).

With respect to claim 10, Witt as modified discloses all claim limitations as set forth above but fails to show wherein said fluidized bed apparatus comprises a rotary rotor for sending the powder particles that have passed the disintegrator mechanism to an upward current of the fluidizing gas by centrifugal force. Hirschfeld teaches an apparatus for coating particles agitated by a rotatable rotor (fig. 1, 21) and a rotating circular disk (23) in order to give rise to a centrifugal force (col. 10, lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a rotary rotor as part of Witt's modified disintegrator

mechanism/agitator, as taught by Hirschfeld, in order to give rise to a centrifugal force.

With respect to claims 13 and 17, Witt teaches wherein said fluidized bed apparatus (fig. 1) comprises a spray nozzle/gassing device (43) (as illustrated).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. (US 5,779,995) as applied to claim 2 above, and further in view of Stormo (US 5,779,996).

With respect to claim 3, Witt discloses all claim limitations as set forth above but fails to show wherein said disintegrator mechanism/agitator (4) further comprises a screen arranged at a predetermined gap from the disintegrator blade of the impeller. Stormo teaches an apparatus (fig. 5) for treating a slurry or solid particles comprising a disintegrator mechanism/stirrer blades (27) and a screen/filter (41) at a predetermined gap from the disintegrator blade (27) in order to prevent the solid particles in the slurry or suspension greater than the size of the screen openings from exiting the vessel (col. 7, lines 17-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a screen arranged at a predetermined gap from the disintegrator blade of the impeller in Witt's apparatus, as taught by Stormo, in order to prevent the solid particles in the slurry or suspension greater than the size of the screen openings from exiting the vessel.

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9. Claims 9, 12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. (US 5,779,995) in view of Stormo (US 5,779,996), as applied to claim 3 above, and further in view of Hirschfeld et al. (US 5,284,678).

With respect to claim 9, Witt as modified discloses all claim limitations as set forth above but fails to show wherein said fluidized bed apparatus comprises a rotary rotor for sending the powder particles that have passed the disintegrator mechanism to an upward current of the fluidizing gas by centrifugal force. Hirschfeld teaches an apparatus for coating particles agitated by a rotatable rotor (fig. 1, 21) and a rotating circular disk (23) in order to give rise to a centrifugal force (col. 10, lines 13-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a rotary rotor as part of Witt's modified disintegrator mechanism/agitator, as taught by Hirschfeld, in order to give rise to a centrifugal force.

With respect to claims 12 and 16, Witt teaches wherein said fluidized bed apparatus (fig. 1) comprises a spray nozzle/gassing device (43) (as illustrated).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaity Handal whose telephone number is (571) 272-8520. The examiner can normally be reached on M-F 8-5.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KH

7/6/2006


ALEXA DOROSHENK NECKEL
PRIMARY EXAMINER